



## INITIAL RC DRILLING PROGRAMME COMPLETED WITH NEW MINERALIZATION EXTENSIONS AT ALL RSSZ BENDIGO-OPHIR PROSPECTS

- The initial reverse circulation (RC) drilling programme has concluded with 3,417 metres across 33 drillholes.
- Diamond (DD) drilling is continuing with 1,176 metres across 8 holes completed to date.
- New gold mineralization has been delineated outside current JORC inferred resources at all prospects.
- Rise and Shine Shear Zone (RSSZ) mineralization at Come-in-Time (CIT) and Rise & Shine (RAS) prospects is now extended up to 700 metres north down-plunge and 150 metres across axes.
- Visible gold is increasingly evident in DD core / RC chips associated with polyphase quartz veining / brecciation, arsenopyrite and galena.
- Field pXRF arsenic analyses define broader mineralized zones with gold assays pending.

### New drilling results\*

- Come-in-Time (CIT)
  - MRC073 4m @ 0.57g/t Au from 129m (Au range 0.18-1.32g/t).
- Rise and Shine (RAS)
  - MRC079 9m @ 1,356ppm As from 125m
  - o MRC080 13m @ 1,632ppm As from 78m with visible gold
  - MRC083 6m @ 1,446ppm As from 47m with visible gold
  - o MDD007 visible gold in quartz veins / stockwork (Au assays & As analyses pending)
- Shreks (SHR)
  - MRC093 26m @ 2,348ppm As from 80m
  - MDD004 9m @ 0.61g/t Au from 15m (Au range 0.06-1.51g/t).
- Shreks East (SRE)
  - MRC086 13m @ 1,349ppm As from 60m
  - MRC087 8m @ 817ppm As from 25m

#### \* (Au composites min 0.25g/t Au / 4m, As composites min 500ppm / 4m)

The programme of extension drilling targeting northerly down-plunge RSSZ mineralization is proving successful. A consistent flow of assays from the remaining 19 holes of this maiden drill campaign are expected from early next week. Material increases in resource gold grades and ounces is heralded.

**22 April 2021** Santana Minerals Limited (ASX: SMI) ("Santana" or "the Company") is pleased to announce ongoing drilling results from 100% owned Bendigo-Ophir Project ("the Project"). The Company embarked on an aggressive 4,500-metre resource extension drilling programme of reverse circulation (RC) and diamond core (DD) holes in November 2020 targeting down-plunge mineralization from existing 252Koz JORC inferred resources (ASX announcement on 3<sup>rd</sup> November 2020).

The RC programme has been completed and new results continue to flow from areas beyond the early downplunge intercepts at CIT (ASX announcement on 2<sup>nd</sup> February 2021). New structural, lithological and assay data from DD drillholes (ASX announcement on 23<sup>rd</sup> March 2021) has encouraged large incremental step out drilling that continues to unmask new down-plunge mineralization distant from existing resources.

Commenting on the drilling to date Executive Director Dick Keevers said:

"Our maiden drill programme has defined extensions to the 252,000 ounces of inferred gold resources (JORC compliant) and more gold assays are awaited to better assess. A pleasant surprise was a much thicker mineralised stockwork zone at the northern, down-plunge extension of RAS, where 170m of core in DD hole MDD007 has repeated zones of intense mineralised stockwork better developed than previously encountered in the whole goldfield. Gold assays are required to determine the value of this mineralization where core logging has recorded visible gold in a structurally controlled stockwork zone apparently part of a thickened shoot of mineralization."



### **Drilling Status**

Current drilling commenced at CIT Prospect in November 2020 with MDD001, the first DD drillhole ever collared within the Project Area. The DD programme is delivering PQ oriented core which is utilized for metallurgical, structural, lithological and assay purposes, with results guiding follow-on drilling.

RC resource extension drilling followed in December 2020 and RC and DD has focused on the main prospects, CIT, Rise & Shine (RAS) and Shreks / Shreks East (SHR / SRE) in the north Dunstan Range (Figure 1).

A total of 4,593 metres in 41 drillholes across four prospects includes:

- 3,417 metres across 33 RC holes
- 1,176 metres across 8 DD holes to date

The RC rig has now been de-mobilized whilst results are processed with DD drilling ongoing. Historically the area has had poor drill coverage and the current aggressive broad spaced (100-200 metre) 6-month campaign will have achieved half the total drilled in the preceding 33 years.

Total drilling in the northern Dunstan Range to date includes:

٠	1986 – 2019 RC	153 holes	(9,523 metres
٠	2020-2021 RC & DD	41 holes	(4,593 metres)
٠	2021 to be completed DD	3 holes	(~700 metres)

A follow-on drill programme for later this year is in the early stages of planning and will be further refined upon the receipt and interpretation of the remaining assays from the Company's maiden drill programme.

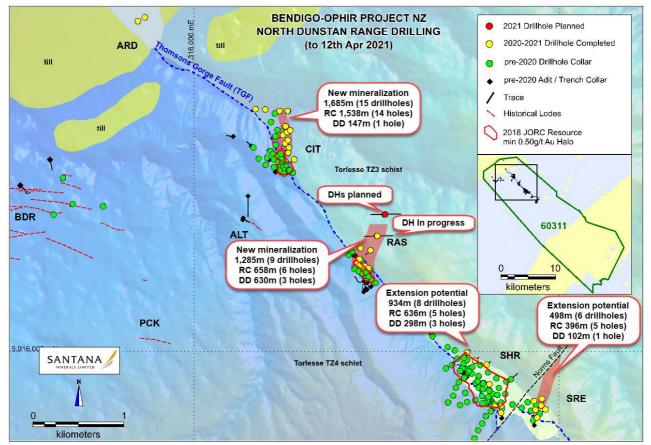


Figure 1 Drilling locations and mineralization

### 2020-2021 Drill Results

Gold assays are pending for 19 of 41 holes drilled (one hole in progress). Significant gold and pXRF arsenic intercepts (where assays are pending) are summarized in Table 1 and Figures 2, 3, 6 and Appendix 1.



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# Table 1: Drilling Summary - locations & intercepts (to 12<sup>th</sup> April 2021)

ype	Prospect	Holes	Metres	Drillhole #	East (NZTM)	North (NZTM)	RL (m)	Azi (T)		Depth Metres	Significant Gold Intercepts (FAA505, min 0.25g/t, >4 metre composites)	Au (g/t) Range	Arsenic (pXRF As ppm)
				MRC064	1,316,997	5,018,283	544.5	225	-60	110.0	26m @ 1.78g/t from 63m	0.08-8.58	3,59
				MRC065	1,317,030	5,018,318	543.0	227	-62	135.0	24m @ 0.55g/t from 83m	0.14-1.60	2,04
											7m @ 0.42g/t from 126m	0.02-1.27	68
				MRC066	1,317,040	5,018,235	564.8	231	-63	135.0	12m @ 2.04g/t from 75m	0.27-13.60	2,41
				MRC067	1,317,097	5,018,107	596.6	225	-64	130.0	6m @ 0.34g/t from 84m	0.04-0.72	55
				MRC068	1,316,974	5,018,375	517.4	228	-64	120.0	7m @ 0.31g/t from 71m	0.16-0.62	79
											4m @ 0.45g/t from 107m	0.21-0.87	1,33
	Come-in-			MRC069	1,317,019	5,018,407	518.5	233	-65	120.0	18m @ 0.44g/t from 93m	0.13-1.25	1,43
	Time	14	1,538	MRC070	1,317,055	5,018,425	517.6	227	-62	139.0	12m @ 1.08g/t from 106m	0.07-3.37	2,35
	(CIT)										8m @ 0.40g/t from 124m	0.13-0.89	57
				MRC071	1,316,997	5,018,462	509.8	228	-60	24.0	caved		
				MRC072	1,317,030	5,018,637	436.2	228	-60	48.0	caved		
				MRC072R	1,317,026	5,018,637	436.2	210	-83	148.0	sub 0.25g/t <4m		
						5,018,638				168.0	4m @ 0.57g/t from 129m	0.18-1.32	1,45
						5,018,654		-		84.0	sub 0.25g/t <4m		_,
î						5,018,659			-88	60.0	sub 0.25g/t <4m		
REVERSE CIRCULATION DRILLING (RC)						5,018,469				117.0	caved		
BNI						5,019,622			-90	76.0	sub 0.25g/t <4m		
RILL	Ardgour	3	189			5,021,269		-	-90	53.0	caved		
DN	(ARD)					5,019,663				60.0	sub 0.25g/t <4m		
						5,017,111	-	-		172.0			9m @ 1,356ppm from 125n
JLA				WIRC079	1,517,954	5,017,111	709.4	220	-05	172.0	assays pending		
RCL				MDC080	1 217 022	E 017 126	751.4	220	75	120.0	assays pending		10m @ 1,009ppm from 140n
ECI						5,017,136					assays pending		13m @ 1,632ppm from 78n
ERS	Rise &	6	650			5,016,965				66.0	assays pending		sub 500ppm <4n
REV	Shine (RAS)	0	658			5,016,944				72.0	assays pending		sub 500ppm <4n
_	(10,45)			MRC083	1,317,871	5,016,941	703.2	228	-65	108.0	assays pending		6m @ 1,446ppm from 47n
											assays pending		7m @ 536ppm from 55n
				MRC084	1,317,912	5,016,914	705.6	228	-67	120.0	assays pending		8m @ 885ppm from 36n
											assays pending		11m @ 838ppm from 45n
						5,015,462				72.0	assays pending		sub 500ppm <4n
	Shreks	_				5,015,411				84.0	assays pending		13m @ 1,349ppm from 60n
	East (CDE)	5	396			5,015,364				78.0	assays pending		8m @ 817ppm from 25n
	(SRE)				1,319,849	5,015,370	807.9	228	-61	96.0	assays pending		sub 500ppm <4n
				MRC089		5,015,278				66.0	assays pending		sub 500ppm <4n
				MRC090	1,319,364	5,015,333	838.4	228	-61	66.0	assays pending		sub 500ppm <4n
				MRC091	1,319,365	5,015,407	821.8	228	-61	78.0	assays pending		sub 500ppm <4n
	Shreks			MRC092	1,319,207	5,015,859	764.3	49	-70	162.0	assays pending		5m @ 1,011ppm from 112n
	(SHR)	5	636	MRC093	1,318,991	5,015,992	751.5	42	-74	168.0	assays pending		26m @ 2,348ppm from 80n
											assays pending		5m @ 537ppm from 113n
											assays pending		5m @ 674ppm from 126n
				MRC094	1,319,078	5,015,905	756.3	44	-70	162.0	assays pending		sub 500ppm <4n
	RC Total	33	3,417										
	Come-in-			MDD001	1,317,031	5,018,181	574.7	231	-60	146.9	11m @ 0.86g/t from 62m	0.15-2.59	3,27
	Time	1	147										
	(CIT)												
â	Shreks	1	102	MDD003	1,319,811	5,015,484	801.1	226	-61	101.5	9m @ 0.46g/t from 64m		1,29
DIAMOND DRILLING (DD)	East (SRE)	1	102								8m @ 1.22g/t from 75m	0.11-5.70	1,09
	(0112)			MDD004	1,319,296	5,015,404	821.5	225	-63	78.8	9m @ 0.61g/t from 15m	0.06-1.51	pendin
ORIL	Shreks	3	298			5,015,645		-		95.0	assays pending	5.55 1.51	pendin
IDV	(SHR)	-	200			5,015,845				123.9			
NO											assays pending	0.00.1.25	pendin;
IAP				WDD002	1,31/,811	5,017,014	703.7	251	-63	114.6	8m @ 0.42g/t from 45m		1,65
-	Rise &	,	620								6m @ 0.31g/t from 65m		65
	Shine (RAS)	3	630		4 946 997				6-		10m @ 3.36g/t from 73m	0.03-16.19	1,46
	(10-3)			MDD007		5,017,270	725.5	267	-65		assays pending		pendin
						5,017,270			-60	180.0	drilling in progress		



#### Come-in-Time (CIT)

The zone of new gold mineralization defined in February (ASX announcement on 2<sup>nd</sup> February 2021) has been extended north by a fence of 4 holes (MRC072R to MRC078) drilled across plunge (Figure 2) in Shepherds Valley. RSSZ mineralization was intercepted in all holes tapering in thickness outwards from MRC073 in the axis with 4m @ 0.57g/t Au from 129m (minimum 0.25g/t Au, >4 metres). Down-plunge mineralization (4-26 metres thick) now extends 700m north and 100-200 metres east-west across the axis.

Mineralization at CIT has not been closed off and is open to the east.

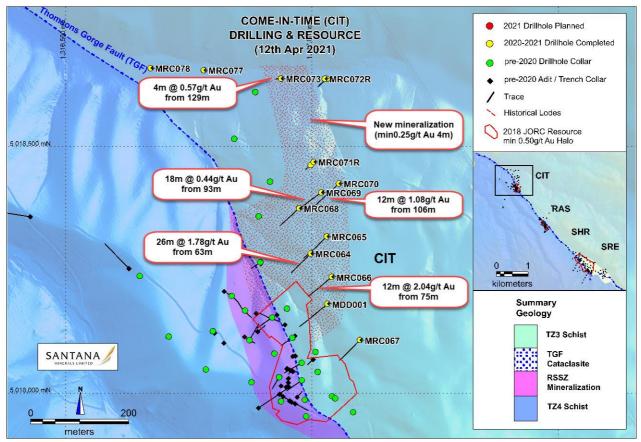


Figure 2 CIT Drilling locations and mineralization

### Rise & Shine (RAS)

Drillholes MRC079 and MRC080, >150 metres north of the RAS resource (Figure 3) have intersected new RSSZ quartz-arsenopyrite-pyrite mineralization with high pXRF arsenic zones (gold assays pending) and visible gold logged in MRC080 (Figure 4).

- MRC079 9m @ 1,356ppm As from 125m and 10m @ 1,009ppm As from 140m
- MRC080 13m @ 1,632ppm As from 78m (visible gold 82-83m)

These drillholes, collared 110m apart, were sited to test down-plunge extensions of mineralization intersected in MDD002 with 10m @ 3.36g/t Au from 73m [including 2m 14.00g/t Au from 81m] (ASX announcement on 23<sup>rd</sup> March 2021).

MDD002 and all previous RAS drilling has been in the Rise and Shine valley below the TGF / RSSZ upper contact which is masked by slope scree and loess. The new RSSZ mineralization in MRC079 / MRC080 is shear related and 80m higher in the RSSZ than the MDD002 quartz vein / stockwork footwall intercepts.

RC drillholes (MRC081-084) in the valley floor also intersected RSSZ mineralization. In MRC083 and MRC084 there were two elevated pXRF arsenic intervals. Visible gold logged in MRC083 between 46-49m and 52-53m may represent a down-dip extension of lodes mined in the nearby Eureka Mine workings:

- MRC083 6m @ 1,446ppm As from 47m (visible gold) and 7m @ 536ppm As from 55m
- MRC084 8m @ 885ppm As from 36m and 11m @ 838ppm As from 45m



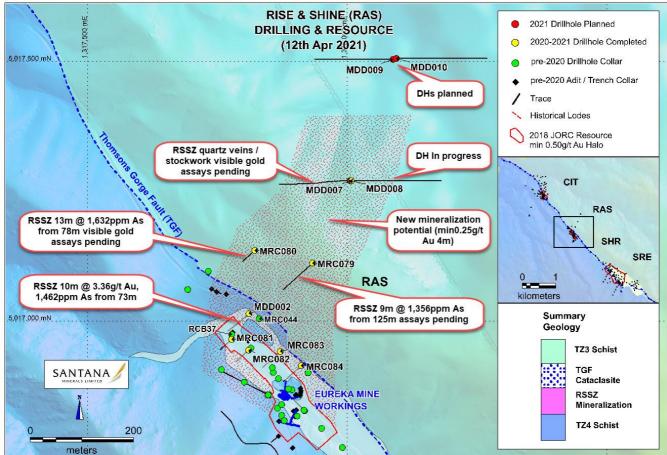
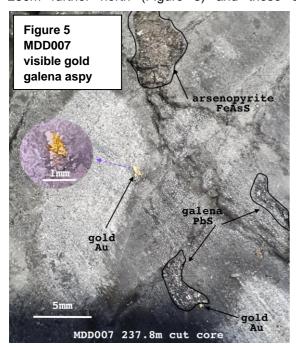
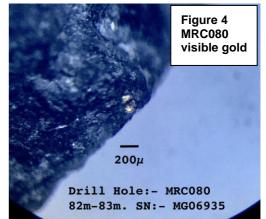


Figure 3 RAS Drilling locations and mineralization

The new RSSZ intercepts in MRC079 / MRC080 prompted further step out drilling down-plunge. Drillholes MDD007 and MDD008 were sited 150m north (drilling at -60° to 270T & 090T respectively). Two further sites for MDD009 and MDD010 have been prepared a further 230m further north (Figure 3) and these drillholes will test



approximately 600 metres of down-plunge potential north of the existing RAS resource.



MDD007 was drilled to 335.3m and intercepted the TGF / RSSZ contact at 165m near the predicted 3D modelled plane. Both sheared and quartz vein / stockwork RSSZ occur in intermittent zones between the TGF (at 165m) and EOH, a width of 170 metres. Between 234m and 240.8m, a 6.8 metre zone of increased stockwork and polyphase / fractured quartz veining was encountered with blue-grey chalcedonic quartz, arsenopyrite, galena and visible gold (Figure 5). Narrow stockwork veins present are typically laminated quartz and arsenopyrite.

MDD008 is currently in progress at a depth of 180m.



### Shreks (SHR) & Shreks East (SRE)

At SHR, three RC drillholes north of the existing resource (Figure 1) were sited to test northern down-plunge extensions. The western drillhole (MRC093) intersected 26 metres of RSSZ mineralization with elevated arsenic levels (gold assays pending).

### • MRC093 - 26 metres @ 2,348ppm As from 80 metres

The southern end of SHR resource (Figure 6) was tested with DD hole MDD004 oriented south-west for structural and mineralization data. RSSZ shear mineralization 9 metres wide was intersected:

• MDD004 - 9 metres @ 0.61g/t Au from 15 metres (Au range 0.06 – 1.51g/t).

At Shreks East (SRE) an uplifted block east of SHR and Norms Fault (Figure 6), 5 RC drillholes (MRC085-089) tested extensions to 2019 RC intercepts and positive MDD003 results of 19m @ 0.75g/t Au from 64m, including 8m @ 1.22 g/t Au (ASX announcement on 23<sup>rd</sup> March 2021). All RC holes intersected RSSZ mineralization with two (MRC086 & MRC087) having wider zones with elevated arsenic levels (gold assays pending):

### • MRC086 - 13m @ 1,349ppm As from 60m (shear and stockwork veins)

### • MRC087 - 8m @ 817ppm As from 25m (shear)

SRE new mineralization appears >100m wide in a shoot plunging north and remaining open. Gold assays are pending for all remaining SHR / SRE DD and RC drillholes.

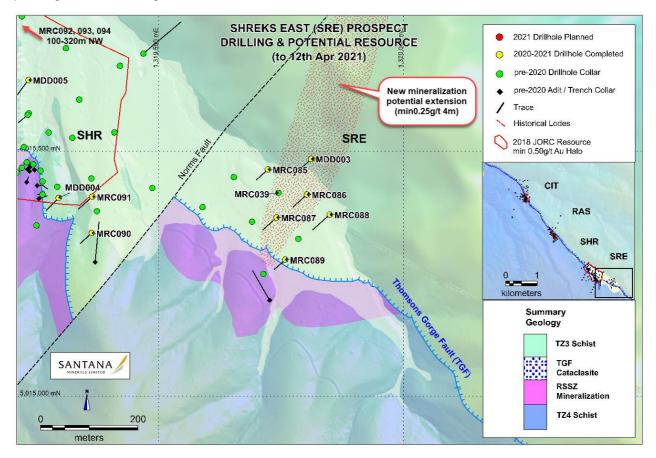


Figure 6 SRE Drilling locations and mineralization

### Ardgour (ARD)

Three RC drillholes at this location (Figure 1) tested a heliborne EM and magnetic target and were scheduled to accommodate landowner infrastructure planning. Two of the 3 drillholes targeting hidden RSSZ mineralization below fluvio-glacial sediments intersected TZ4 schist, with MRC076 returning gold assays marginally above detection limit. Mineralization at this remote location 2km north-west of CIT extends the RSSZ potential and is a target for future drill testing.



#### Key takeaways

Positive drill results continue to flow at grades and widths that are expected to materially enhance the project metrics with two new mineralized zones at CIT and RAS having potential to markedly increase resources.

#### **Forward Programme**

The gold assays pending from RAS will determine immediate follow-on drilling targets and requirements. Resource modelling, an extended LiDAR programme and initial metallurgical work are continuing.

The announcement has been authorised for release to the ASX by the Board.

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#### About Santana Minerals Limited Bendigo-Ophir Project

The Bendigo-Ophir Project is located on the South Island of New Zealand within the Central Otago Goldfields. The Project is located ~90 kilometres northwest of Oceana Gold Ltd (OGC) Macraes Gold Mine (Figure 7).

The Project contains a JORC Inferred Resource of 252K ounces gold (uncut), estimate based on drill results to 2018 which the Company interprets has the potential to be expanded and developed into a low cost per ounce heap leach operation, with ore from bulk tonnage open pits.

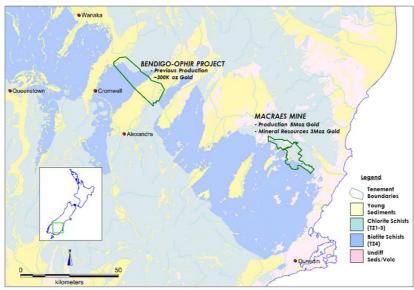


Figure 7 Bendigo-Ophir Project in the Otago Goldfield, ~90km NW of Macraes

The Bendigo-Ophir resources occur in 3 deposits (Figure 1) that are inferred to extend in a northerly direction within the RSSZ which hosts gold mineralization over a recognised strike length of >20km. The RSSZ occurs at the contact with TZ3 and TZ4 schist units separated by a regional fault (Thomsons Gorge Fault-TGF) and dips at a low angle (25°) to the northeast. The RSSZ is currently interpreted to have upper shear hosted gold mineralization 10-40 metres in width above quartz vein and stockwork related gold mineralization extending >100 metres below the upper shear which is largely untested down-plunge and at depth.

The Company embarked on diamond drilling (DD) and reverse circulation (RC) drilling programmes in November 2020 with the immediate objective to increase the existing resources by drill testing the down plunge extensions of known mineralisation. The Company is focusing on advanced precious metals opportunities in New Zealand and Mexico and a database update with resource modelling has commenced with a view to progressively upgrade the Bendigo-Ophir JORC resources for a new estimate by mid-year.



#### **Current Disclosure - Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Richard Keevers, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Keevers is a Director of Santana Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Keevers consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified.

#### **Forward Looking Statements**

Forward-looking statements in this announcement include, but are not limited to, statements with respect to Santana's future plans, strategy, activities, events or developments the Company believes, expects or anticipates will or may occur. By their very nature, forward-looking statements require Santana to make assumptions that may not materialize or that may not be accurate. Although Santana believes that the expectations reflected in the forward-looking statements in this announcement are reasonable, no assurance can be given that these expectations will prove to have been correct, as actual results and future events could differ materially from those anticipated in the forward-looking statements. Accordingly, viewers are cautioned not to place undue reliance on forward-looking statements. Santana does not undertake to update publicly or to revise any of the included forward-looking statements, except as may be required under applicable securities laws.

Hole No	From (m)	To (m)	Interval (m)	Sample Type	Sample No	Au g/t (FAA505)	As ppm (pXRF)
MDD004	15.0	16.0	1.0	1/2 PQ	MG09218	0.29	59.4
MDD004	16.0	17.0	1.0	1/2 PQ	MG09219	0.47	857
MDD004	17.0	18.0	1.0	1/2 PQ	MG09221	0.13	172
MDD004	18.0	19.0	1.0	1/2 PQ	MG09222	0.10	156
MDD004	19.0	20.0	1.0	1/2 PQ	MG09223	1.07	2274
MDD004	20.0	21.2	1.2	1/2 PQ	MG09224_40	1.63	8471
MDD004	21.2	22.0	0.8	1/2 PQ	MG09225	0.50	840
MDD004	22.0	23.0	1.0	1/2 PQ	MG09226	0.06	94
MDD004	23.0	24.0	1.0	1/2 PQ	MG09227	1.13	460
MRC073	129	130	1.0	RC Chip	MG06288	0.33	717
MRC073	130	131	1.0	RC Chip	MG06289	0.18	1233
MRC073	131	132	1.0	RC Chip	MG06290	1.32	694
MRC073	132	133	1.0	RC Chip	MG06291	0.44	3167

#### Appendix 1 - Gold assays for reported composite Au intercepts



# JORC Code, 2012 Edition – Table 1

# Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Reverse Circulation (RC) drill samples were collected in calico bags every metre (1 metre intervals) in duplicate, split from the rig cyclone, dropbox and riffle splitter. Samples are typically 2.5kg in weight and one duplicate in 25 is inserted as a replicate sample to the laboratory with the balance retained to address any coarse gold issues that arise.
	<ul><li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li><li>Aspects of the determination of mineralisation that are Material to the Public Report.</li></ul>	Diamond drill (DD) core samples for laboratory assay are typically 1 metre samples of diamond saw cut half diameter core. Where distinct mineralisation boundaries are logged, sample lengths are adjusted to the respective geological contact.
	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire	Samples are crushed at the receiving laboratory to minus 2mm (80% passing) and split to provide 1kg for pulverising to -75um. Pulps are fire assayed using a 50g charge.
	assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	Routine portable XRF (pXRF) multielement analyses are conducted on the RC calico bag 1 metre samples and DD core at 10-50cm intervals using an Olympus Delta instrument (model DPO-4000) with daily calibration and QAQC analyses of SiO2 blank and NIST standards (NIST 2710a & NIST2711a).
		The field pXRF analyses are a preliminary routine procedure to determine indicative levels of arsenic (as a gold pathfinder element) to aid in sample selection for gold assays, chip logging, assist early modelling and follow-on drillhole planning.
		The field pXRF multielement analyses are repeated on the sample pulps returned from the laboratory with a suite of 31 elements reported.
		Samples for assay were selected to include approximately 5 one metre samples of barren schist above mineralisation.



Criteria	JORC Code explanation	Commentary
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Current drilling techniques are reverse circulation (RC) with a 5.25" face sampling bit and diamond core (DD) PQ and HQ size triple tube. PQ core size is maintained throughout the DD hole until drilling conditions dictate reduction in size to HQ.
		Drillholes are oriented to intersect known mineralised features in a nominally perpendicular orientation as much as is practicable.
		All drill core is oriented to assist with interpretation of mineralisation and structure using a Trucore orientation tool.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	RC sample recoveries are visual estimates by the site geologist from assessment of cuttings volumes in bulk residue bags from the splitter as a methodology conducted in the past and considered sufficient. The RC drilling equipment is identical to that used since 2005 and no relationship between sample recovery and grade has been noted. No preferential losses of sample have occurred except in wet drilling sampling cases which in the past have been inspected and found to have no influence on the grade estimation. DD core sample recoveries are recorded by the drillers at the time of drilling by measuring the actual distance of the drill run against the actual core recovered. The measurements are checked by the site geologist. When poor core recoveries are recorded the site geologist and driller endeavour to immediately rectify any problems to maintain maximum core recoveries. DD core logging to date indicate >97% recoveries. The drilling contract used states for any given run, a level of recovery is required otherwise financial penalties are applied to the drill contractor to ensure sample recovery priority along with production performance.



Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	All RC and DD holes have been logged for their entire sampled length below upper open hole drilling (nominally 0-120 metres below collar). Data is transcribed from paper logs into spreadsheets and then imported into an Access database with sufficient detail that supports Mineral Resource estimations to be made at the completion of drilling campaigns.
	The total length and percentage of the relevant intersections logged.	Logging is mostly qualitative but there are estimations of quartz and sulphide content and quantitative records of geological / structural unit, oxidation state and water table boundaries.
		Oriented DD core allows alpha / beta measurements to determine structural element detail (dip / dip direction) to supplement routine recording of lithologies / alteration / mineralisation / structure / weathering / colour and other features for mineral resource reporting.
		All core is photographed wet and dry before cutting.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.If non-core, whether riffled, tube sampled, rotary split, etc and whethersampled wet or dry.For all sample types, the nature, quality and appropriateness of thesample preparation technique.Quality control procedures adopted for all sub-sampling stages tomaximise representivity of samples.Measures taken to ensure that the sampling is representative of the in situmaterial collected, including for instance results for fieldduplicate/second-half sampling.Whether sample sizes are appropriate to the grain size of the materialbeing sampled.	<ul> <li>RC drill samples are riffle split below the rig cyclone to produce two samples at one metre intervals of ~3kg each and a large ~30-40kg reject collected in appropriate bags. Most samples are dry, with wet sample intervals recorded in the database.</li> <li>Industry standard laboratory sample preparation methods are suitable for the mineralisation style and involve, oven drying, crushing and splitting of samples to 1kg for pulverising to -75um. Pulps are fire assayed using a 50g charge.</li> <li>50g charge is considered minimum requirement for the coarse nature of the gold. Larger screen fire assays and 1kg Leachwell determinations will be conducted periodically as a QAQC check.</li> <li>DD core drill samples are sawn in half along the length of the core perpendicular to structure / foliation. Intervals required for QAQC checks are quartered core from half sections of core to be sent for assay. Assay results of quartered core samples are combined and averaged to</li> </ul>
		be of equal representation of assays from routine half core samples.
		QAQC procedures include field replicates, standards and blanks at a frequency of ~4% and cross-lab assay checks at an umpire laboratory.



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	RC samples and DD core for gold assays undergo sample preparation by SGS laboratory Westport and 50g fire assay with an AAS finish (SGS method FAA505, DDL 0.01ppm Au) by SGS laboratory Waihi. Portable XRF (pXRF) instrumentation is used onsite (Olympus Innov-X Delta Professional Series model DPO-4000 equipped with a 4 W 40kV X-Ray tube) primarily to identify arsenical samples (arsenic correlates well with gold grade in these orogenic deposits). The pXRF analyses a 31-element suite (Ag, As, Bi, Ca, Cd, Cl, Co, Cr, Cu, Fe, Hg, K, Mn, Mo, Nb, Ni, P, Pb, Rb, S, Sb, Se, Sn, Sr, Th, Ti, V, W, Y, Zn, Zr) utilising 3 beam Soil mode, each beam set for 30 seconds (90 seconds total). pXRF QAQC checks involve 2x daily calibration and QAQC analyses of SiO2 blank and NIST standards (NIST 2710a & NIST 2711a). For laboratory QAQC, samples (3*certified standards, blanks and field replicates) are inserted into laboratory batches at a frequency of ~4% and ~5% respectively. Samples are selected at the end of each drilling campaign to be sent to an umpire laboratory for cross-lab check assays.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Significant gold assays and pXRF arsenic analyses are checked by alternative senior company personnel. Original lab assays are initially reported and where replicate assays and other QAQC work require re- assay or screen fire assays, larger sample results will be adopted. To date results are accurate and fit well with the mineralisation model. DD core holes have been sited adjacent to previous RC drillholes to provide twinned data. DD and RC assay results are in the process of being correlated for quality of intercept lengths and grade. pXRF multi-element analyses are directly downloaded from the pXRF analyser as csv electronic files. These and laboratory assay csv files are imported into the database, appended and merged with previous data. The database master is stored off-site and periodically updated and verified by an independent qualified person. There have been no adjustments to analytical data presented.



Criteria	JORC Code explanation	Commentary
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	DD and RC drillhole collar locations reported are captured by Santana field crew using a Garmin GPSmap78sc handheld GPS with an accuracy of 2-3 metres.
	Specification of the grid system used. Quality and adequacy of topographic control.	RL control for the GPS locations is excellent with 2018 LiDAR Survey data of 0.5 metre accuracy.
		At completion of the drilling campaign fully accurate (+/- 50mm) xyz coordinates will be captured by a licensed surveyor using RTK-GPS equipment.
		All drill holes reference the NZTM map projection and collar RLs the NZVD2016 vertical datum.
		RC down hole surveys are recorded at maximum 30m intervals by using a Reflex digital downhole survey camera tool.
		DD down hole surveys are recorded at 12m intervals using a Reflex multi-shot camera.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	Drillhole collar spacing is variable and considered appropriate for determination of geological and grade continuity during this phase of the drilling programme. Site locations are dictated by availability of existing access tracks and gentler topography to allow safe working drill pad excavations in otherwise steep terrain. No compositing of samples is being undertaken for analysis. Sampling and assaying are in one metre intervals or truncated to logged features.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The majority of drillholes in this campaign are inclined to intercept mineralisation at a reasonable angle and facilitate core orientation measurements. There is not anticipated to be any introduced bias for future resource estimates.



Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	Company personnel manage the chain of custody from sampling site to laboratory. RC drill samples are tied securely by drilling personnel after removal from the splitter and placed in numerical order supervised by Santana field crew who transport samples from site to the nearby secure Company Field Base and sample despatch / storage facility. DD drill core samples are transported daily from DD rig by the drilling contractor in numbered core boxes to the Company secure storage facility for logging and sample preparation. After core cutting, the core for assay is bagged, securely tied and weighed before being placed in polyweave bags which are securely tied. Retained core is stored on racks in secure locked containers. Polyweave bags with the calico bagged samples for assay are placed in steel cage pallets, sealed with a wire-tied tarpaulin cover, photographed and transported to local freight distributer for delivery to the laboratory. On arrival at the laboratory photographs taken of the consignment are checked against despatch condition to ensure no tampering has occured.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	An independent competent Person (CP) conducted a site audit of all sampling techniques and data management in January with no major issues identified.



# Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Exploration is being conducted within Exploration Permit 60311 registered to Matakanui Gold Ltd (MGL) issued on 13<sup>th</sup> April 2018 for 5 years with renewal date on 12<sup>th</sup> April 2023. MGL has the gold rights for this tenement. There are no material issues with third parties.</li> <li>The tenure is secure and there are no known impediments to obtaining a licence to operate.</li> <li>The Project is subject to a 1.5% Net Smelter Royalty (NSR) on all production from EP60311 payable to an incorporated, private company (Rise and Shine Holdings Limited) which is owned by the prior shareholders of MGL (NSRW Agreement) before acquisition of 100% of MGL shares by Santana Minerals Limited.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Early exploration in the late 1800's and early 1900's included small pits, adits and cross-cuts and alluvial mining.</li> <li>Exploration has included soil and rock chip sampling by numerous companies since 1983 with drilling starting in 1986. Exploration in the 1990's commenced with a search for Macraes style gold deposits along the RSSZ. Drilling has included 13 RC holes by Homestake NZ Exploration Ltd in 1986, 20 RC holes by BHP Gold Mines NZ Ltd in 1988 (10 of these holes were in the Bendigo Reefs area which is not part of the Inferred Resource area), 5 RC holes by Macraes Mining Company Ltd in 1991, 22 shallow holes probably blasthole style by Aurum Reef Resources (NZ) Ltd in 1996, 30 RC holes by CanAlaska Ventures Ltd from 2005-2007, 35 RC holes by MGL in 2018 and a further 18 holes by MGL in 2019.</li> </ul>



Criteria	JORC Code explanation	Commentary
Geology	• Deposit type, geological setting and style of mineralisation.	The RSSZ is a low-angle late-metamorphic shear-zone up to 100m thick. It is sub-parallel to the metamorphic foliation and dips gently to the north- east. It occurs within psammitic, pelitic and meta-volcanic rocks. Gold mineralisation is concentrated in multiple deposits along the shear zone. In the Project area there are 3 deposits with Mineral Resource estimates – Come-in-Time (CIT), Rise and Shine (RAS) and Shreks (SHR). The gold and associated pyrite/arsenopyrite mineralisation at CIT, RAS and SHR occur along microshears and in quartz veinlets within the highly- sheared schist. There are several structural controls on mineralisation with apparent NNW, north and north-east trending structures all influencing gold distribution. Mineralisation is generally strongest within the top 20m of the shear zone. Unlike Macraes, the gold mineralisation in the oxide and transition zones is characterised by free gold and silica- poor but extensive ankerite alteration.
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	Refer to Table 1 in the body of text. No material information has been excluded.
	$\circ$ easting and northing of the drill hole collar	
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul>	
	• <i>dip and azimuth of the hole</i>	
	$\circ$ down hole length and interception depth	
	<ul> <li>hole length.</li> </ul>	
	• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Significant gold intercepts are reported using 0.25g/t Au lower grade cut- offs with 4m of internal dilution included. Broad zonation is: 0.10g/t Au cut-off defines the wider low-grade halo of mineralisation, 0.25g/t Au cut-off represents possible economic mineralisation, with 0.50g/t Au defining high-grade axes / envelopes. Metal unit (MU) distribution, where shown on maps are calculated from total drill hole Au (>DDL) * associated total drill hole interval metres. pXRF arsenic RC drill chip analytical results reported for calico sample bag analyses are indicative only of potential for associated gold values. pXRF analytical results reported for laboratory pulp returns are considered accurate for the suite of elements analysed. Where gold assays are pending, minimum 1,000 ppm composited arsenic values provide a preliminary representation of potential mineralised zones and include 4m <1,000 ppm internal dilution.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	All intercepts quoted are downhole widths. Intercepts are associated with a major 20-100m thick low-angle mineralised shear that is largely perpendicular to the drillhole traces. There are steeply dipping narrow (1-5m) structures deeper in the footwall and the appropriateness of the current drillhole orientation will become evident and modified as oriented core measurements and additional drill results dictate.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to figures in the body of the text.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All significant intercepts have been reported.



Criteria	JORC Code explanation	Commentary
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	An initial RC extension drilling programme concluded at the end of March. DD drilling down dip / down plunge to the north of existing resources will continue through April and May. Further work will follow as results dictate, which may include infill RC, further DD core drilling, and metallurgical test-work. A database upgrade and resource modelling has commenced for an updated JORC Resource Estimate when all new data has been integrated. Potential extensions to mineralisation and resources are shown in figures in the body of the text.